

REMARKS

Claims 1-4, 6-25, 27-43, and 45-47 remain pending in the application. Claim 2 has been amended without introduction of new matter. Favorable reconsideration is respectfully requested in view of the above amendments and the following remarks.

The indication that claims 9, 17, 20-21, 30, 38, and 41-42 define allowable subject matter is noted with appreciation.

Claim 2 has been amended merely to correct an inadvertent error introduced into the original claim: In the preamble, “wherein the comprising step ...” has been changed to -- wherein the comparing step--. The error would have been readily apparent to one of ordinary skill in the art, since claim 1 does not define a “comprising step”, and further because the body of claim 2 pertains to *comparing* the correlation value with a threshold level. Accordingly, no new matter has been added.

Claims 19, 40, and 47 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Awad et al (US 2004/0022177) (hereinafter “Awad”). This rejection is respectfully traversed.

Applicant believes that the rejection should be withdrawn because Awad neither discloses nor suggests all of the features recited in Applicant's claims. In particular, Awad neither discloses nor suggests the following features which are found in each of independent claims 19, 40 and 47:

- receiving the *HS-SCCH Part 1 message*;
- generating a set of *correlation values by correlating...*
- ... each of a reduced set of possible *codewords*, against the received *HS-SCCH Part 1 message*;
- selecting as a decoded value that one of *the reduced set of possible codewords* that is associated with a *highest one of the correlation values*;
- wherein the *reduced set of possible codewords* is generated from the full set of possible *codewords*.

The Office relies on a number of paragraphs of the Awad patent in support of its rejection. Such reliance is unwarranted for a number of reasons.

To begin with, Awad does not teach reception and decoding of an HS-SCCH Part 1 message, as defined by Applicant's claims. Instead, Awad is concerned with the HS-DSCH which, as anyone familiar with HSDPA will immediately recognize, is quite different. The

HS-DSCH is the data bearer and is subject to link adaptation, whereas the HS-SCCH carries, for example, setup information such as the coding and modulation format to be used in the corresponding HS-DSCH. HS-SCCH is not subject to link adaptation, but is always transmitted with QPSK modulation.

Moreover, nowhere does Awad mention performing a correlation to each of a set of codewords, let alone correlation to a reduced set of possible codewords, as defined by Applicant's claims.

In support of the rejection, the Office characterizes Awad as disclosing "a full set or reduced set of modulation schemes [being] used and a modulation scheme (i.e. 16-QAM, 64-QAM or QPSK) [being] selected based on comparing a received message to a threshold or ratio so as to provide the most efficient level of service to each UE." (See page 2 of the Office Action.)

Applicant respectfully disagrees with the Office's characterization of Awad, and in any case does not understand the relevance of the alleged teachings. Specifically, it is believed that the Office has mischaracterized Awad in the following ways:

- Awad does not appear to disclose "a reduced set" of anything. Only one set of modulation-and-coding (MCS) schemes is disclosed (see, e.g., Awad at paragraph 0012). Nowhere does Awad disclose selecting from a reduced set of all possible MCS schemes.
- Awad does not disclose comparing a received message to a threshold. Rather, in Awad it is a measure of downlink channel quality that is compared to a threshold. (See, e.g., Awad paragraph 0030: "The selection is based on a comparison between a signal transmission quality and a threshold value." See also, e.g., Awad paragraphs 0074-0075, in which a cyclic redundancy check (CRC) is computed and then used as a measure of downlink channel quality in the comparison with the set of threshold values.)

Regardless of whether one considers the alleged or actual teachings of Awad, such teachings are not relevant to the subject matter defined by claims 19, 40 and 47 because:

- Awad's modulation schemes are in no way comparable to Applicant's claimed "codewords." A modulation scheme (more accurately, a "modulation-and-coding level") represents a particular pairing of a type of modulation (e.g., 64-QAM, 16-QAM) with a coding redundancy rate (e.g., 1/2, 3/4) -- see, e.g., Awad paragraphs

0012-0017. By contrast, it is well-known in the art that a “codeword” is a type of spreading code that is used to differentiate between different transmissions. (Even Awad refers to “channelization codes” in paragraph 0005 as a means for distinguishing between different HSDPA channels.) Consequently, Awad’s manipulation of a set of modulation schemes (whether reduced or not) has no relevance to Applicant’s claimed “codewords”.

- Awad’s selecting one of a plurality of modulation schemes based on a comparison to a threshold is in no way equivalent to Applicant’s claimed “generating a set of correlation values by correlating each of a reduced set of possible codewords, against the received HS-SCCH Part 1 message”. As explained above, Awad compares a signal transmission quality with a threshold to make a selection. By contrast, Applicant’s claims define correlating a received HS-SCCH Part 1 message with each of a reduced set of possible codewords. Selection of a decoded value is then based on which correlation value is highest.
- The result of Awad’s process is a selection of an MCS level. By contrast, Applicant’s claims define the result being selection of “a decoded value” of a received HS-SCCH Part 1 message.

For at least the foregoing reasons, the subject matter defined by Applicant’s claims 19, 40, and 47 is believed to be patentably distinguishable over that which is disclosed by Awad in almost every respect. It is therefore respectfully requested that the rejection of these claims under 35 U.S.C. §102(e) be withdrawn.

Claims 1-4, 6-8, 10-16, 18, 22-25, 27-29, 31-37, 39, 43, and 45-46 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Applicant’s Admitted Prior Art (hereinafter “AAPA”) in view of Strutt (USP 7,072,618) and further in view of Awad. This rejection is respectfully traversed.

Independent claims 1, 22, and 43 are patentably distinguishable over any combination of AAPA with the Strutt and Awad patents at least because that combination fails to include “dynamically adjusting the threshold level based on a communication traffic behavior”, wherein that threshold level is used as a basis for determining whether to abort reception of a multi-part message.

The Office states that “[i]t appears from comparing Prior Art figure 2 and figure 5 that AAPA does not use threshold to compare correlation value blocks...”, but relies on the Strutt patent as making up for this deficiency. The Office also rightly acknowledges that the

combination of AAPA and Strutt further lacks “dynamically adjusting the threshold level based on a communication traffic behavior”, but relies on the Awad patent as making up for this deficiency.

The Office’s reliance on Strutt and Awad is inapposite for several reasons. First, Strutt does not teach or suggest that a threshold is to be used when determining whether to abort continued reception of a multi-part message, as defined by Applicant’s claims. Instead, Strutt teaches detecting a signal in the presence of interference or noise by use of the correlation and the threshold. (See, e.g., Strutt’s Abstract.) For this reason, it would not have been at all obvious to a person of ordinary skill in the art how to combine AAPA with Strutt.

Furthermore, neither Strutt nor Awad discloses “dynamically adjusting the threshold based on a communication traffic behavior”, wherein the threshold is used in a step of “aborting reception of the multi-part message if the correlation value is less than a threshold level”. Instead, Strutt adapts a threshold based on the variance of a received signal over time, and the Office appears to acknowledge that this is not at all equivalent to dynamically adjusting the threshold level based on a communication traffic behavior.

Awad similarly fails to disclose or suggest this feature at least because its threshold value has no relevance to Applicant’s threshold level. In Applicant’s variously claimed embodiments, a correlation value is compared with the threshold level, and this is done for the purpose of determining whether to abort reception of the multi-part message.

By contrast, in Awad’s arrangement, a signal transmission quality is compared with a threshold, and this is done for the purpose of selecting one of a number of possible modulation-and-coding levels.

Clearly, Awad’s threshold is used for an entirely different purpose than is Applicant’s threshold. Consequently, whether Awad’s threshold is adjusted, and how this is done, has absolutely no bearing on whether and how to adjust the threshold defined by Applicant’s claims. For at least this reason, a person of ordinary skill in the art would not have been the least bit motivated to apply Awad’s teachings about threshold adjustment to any combination of Awad and Strutt in a way that arrives at Applicant’s claimed invention.

In any case, Awad’s threshold adjustment is based on signal transmission quality (see, e.g., Awad paragraph 0030), which is not indicative of “communication traffic behavior”, as defined by Applicant’s claims. As a non-limiting example of “communication traffic behavior”, paragraph 0069 of Applicant’s specification discloses determining whether or not traffic directed to a UE is part of a burst directed to that UE.

Consequently, any combination of AAPA, Strutt, and Awad would still lack “dynamically adjusting the threshold level based on a communication traffic behavior.”

For at least the foregoing reasons, independent claims 1, 22, and 43 and their various dependent claims 2-4, 6-8, 10-16, 18, 23-25, 27-29, 31-37, 39, and 45-46, are believed to be patentably distinguishable over the AAPA, Strutt, and Awad references, regardless of whether these references are considered individually or in combination. Accordingly, it is respectfully requested that the rejection of claims 1-4, 6-8, 10-16, 18, 22-25, 27-29, 31-37, 39, 43, and 45-46 under 35 U.S.C. §103(a) be withdrawn.

The application is believed to be in condition for allowance. Prompt notice of same is respectfully requested.

Respectfully submitted,
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